

Summaries of the 2000 Stratospheric Ozone Protection Award Winners' Accomplishments

Corporate and Military Winners

COMISION TÉCNICA GUBERNAMENTAL DE OZONO, DINAMA/MOTMA

Uruguay's Country Program was approved in 1993 to eliminate 182 tons of CFC. By 2000 Uruguay had successfully eliminated 57 percent of 1992 CFC consumption levels and reached the 1999 Freeze level as part of its Montreal Protocol obligations. In 1997, the Uruguay National Ozone Unit was one of nine countries to receive an award from the United Nations Environment Program (UNEP) for successful implementation of the Montreal Protocol. In 1999, the Program established a Refrigerant Management Plan for ODS phaseout in the refrigeration and air conditioning sectors and is developing a strategic plan document to eliminate barriers to use alternative refrigerants. Uruguay is also establishing legislation banning the import of CFC based equipment and is implementing a license system for CFC imports and exports.

Quaker Oats Company of Canada

The Quaker Oats Company of Canada has used heat treatment as an alternative to methyl bromide fumigation for over 40 years, with 70 percent of their Peterborough facility now outfitted for heat treatment. This has prevented the use of over 250,000 pounds of methyl bromide. Quaker Oats personnel have provided leadership on the Industry/Government Working Group on Methyl Bromide Alternatives Committee in Canada and through many public presentations describing the use of heat disinfestation. They have also allowed the use of their facilities for two trials on methyl bromide alternatives – phosphine, heat and carbon dioxide as well as heat and diatomaceous earth.

U.S. Air Force Research Laboratory

The Air Force Research Laboratory has worked hard to find effective replacements for halon 1301 for use as an inerting agent in the fuel tank of the F-16 – a highly emissive platform. Dr. Juan Vitali and toxicologists Drs. Allen Vinegar and Darol Dodd, have compiled a valuable database that has allowed for detailed safety, performance and engineering assessments of the usefulness of CF3I as a replacement for halon 1301 in the F-16. Because of their work, CF3I has been shown to be an effective, non-ozone-depleting alternative that may replace halon 1301 in the F-16.

Individual Winners

Dr. David Ball, Kidde

As Kidde's Research Director from 1988, David Ball spearheaded much of their work on halon alternatives. He has served on the United Kingdom's Halon Alternatives Group

since 1993, and since 1994 on the UNEP TEAP Halons Technical Options Committee (HTOC). He is lead author on aviation and chair of the writing group of the Executive Summary of HTOC's latest full Assessment Report. He was also a member of the Halon Replacement Working Group instituted by International Airworthiness Authorities. Recently, David has served as Technical Advisor to UNDP on halon phaseout projects in several countries, and as a technical expert in developing the European Union's Halon Management Strategy.

Dr. Tom Batchelor, European Community

Dr. Tom Batchelor has made substantial national and international contributions toward phasing out and finding alternatives to methyl bromide. He helped develop non-chemical quarantine treatments and programs to phase out agricultural uses of methyl bromide. He was lead author for key sections of MBTOC reports including a detailed international review of alternatives. As co-chair of MBTOC he contributed to TEAP reports; published booklets and articles for agriculture and food industry publications on alternatives to methyl bromide; and organized several international conferences and workshops. He currently leads policy development and implementation of improved action on ozone depleting substances for the European Community.

Dr. Penelope Canan, University of Denver

Dr. Penelope Canan has served as a member of the UNEP TEAP Economic Options Committee since 1991, making substantial contributions to the 1991, 1994 and 1998 Assessment Reports. Dr. Canan, in collaboration with Dr. Nancy Reichman, pioneered studies to understand the social dynamics of the expert networks that have made the TEAP an effective policy body for global environmental governance. Their research, supported by the U.S. National Science Foundation, demonstrates that the success of the TEAP hinges upon fostering a community of experts. It fuelled the political will, defined problems in manageable ways, connected disparate actors to work collaboratively and took advantage of existing networks of influence within industry, academia, government and non-governmental organizations. Dr. Canan has published dozens of papers on the importance of collaboration and networking in the history of ozone layer protection.

Prof. Dr.-Ing. Horst Kruse, University of Hannover Germany

Dr. Horst Kruse has served on the Refrigeration Technical Options Committee since 1988. Dr. Kruse founded the Institute of Refrigeration at the University of Hannover and the Research Center for Refrigeration and Heat Pumps. As president of the German Refrigeration Society from 1989 to 1993, he established a nation-wide government industry research program on the substitution of CFCs. His path breaking publications on the air cycle prompted German Railways to install air cycle A/C systems in the new ICE3 train of German and Dutch railways. Dr. Kruse, as President of the IIR Commission B2, organized the first IIR Conference on "Natural Working Fluids in New Applications" that now meets biannually at last 2000 at Purdue. Dr. Kruse was awarded the ASHRAE International Activities Award in 1996 and was honored as an ASHRAE Fellow in 1997. In 1998 he founded an independent Information Center for Heat Pumps and

Refrigeration, and continues to work on the application of carbon dioxide in refrigeration and heat pump systems.

Dr. David J. Liddy, U.K. Ministry of Defence

Dr. David Liddy has been active in the UK Ministry of Defence's central Montreal Protocol policy organisation since 1992. A specialist in halon replacement, Dr. Liddy is now responsible for guiding and steering all aspects of the UK Ministry of Defence's Montreal Protocol policies and serves as secretary to the Montreal Protocol Task Force and chair of the Halon Alternatives Working Group. He is a member of the UNEP TEAP Halon Technical Options Committee as well as other international groups. Dr. Liddy helped establish a halon alternatives research program at the Defence Evaluation and Research Agency with promising results on phosphorus-containing compounds and played a leading role in the establishment of the MOD halon alternatives clearance procedure that assesses toxicity and environmental acceptability of new compounds.

Ms. Yasuko Matsumoto, Science University of Tokyo, Suwa College

Ms. Yasuko Matsumoto is an Associate Professor at the Science University of Tokyo, Suwa College where she specializes in Environmental Policy. From 1990 to 1998, she was Atmosphere Campaigner for Greenpeace Japan where she worked on ozone layer protection and the prevention of climate change. She used her research as well as the updated scientific findings to persuade the media and the public of the seriousness of ozone depletion. She also helped bring political pressure to the Japanese government through an awareness campaign and sharing of technical information. She worked with industry to promote the Greenfreeze (hydrocarbon refrigerants and insulation) with an aggressive consumer awareness campaign.

Mr. Steve McCormick, U.S. Army Tank-Automotive Command

Mr. Steve McCormick initiated efforts at the U.S. Army Tank-Automotive Command to identify alternatives to halon 1301 in ground combat vehicles. Ongoing retrofit of the engine compartment fire suppressions systems of the Army's M1 Abrams and M2/M3 Bradley will remove over 100,000 pounds of annual usage. Two alternative agents have passed testing for crew explosion protection systems. ODS-free portable extinguishers will eliminate another 56,000 pounds of halon. Mr. McCormick participates in the Defense Halon Alternatives Steering Group, Advanced Agent Working Group, Halon Alternatives Research Corporation and the UNEP TEAP Halons Technical Options Committee.

Dr. Hideki Nishida, Hitachi

Dr. Hideki Nishida, an expert in the cleaning of precision devices, has exerted technical leadership in the ODS phase-out project established in 1990 in Hitachi. Based upon his finding that a slight halogen ion residue on the surface resulted in deterioration in characteristics for color picture tubes and liquid crystal display devices, he developed

non-ionic surfactant-base aqueous detergents. By applying these detergents, the project had phased out approximately 600 tons of 1,1,1-Trichloroethane per year for Hitachi by 1994, and has phased out more than 700 tons of ODSs per year outside Hitachi through his voluntary work since 1994.

Dr. Roberto de Aguiar Peixoto, Maua Technological Institute

Dr. Peixoto is currently Professor of Mechanical Engineering at Maua Technological Institute where he co-ordinates research on energy and environment and acts as a consultant to government, industry, and international organizations. He has been involved in the development of research for CFC-12 substitution in refrigeration systems. Since 1996, Dr. Peixoto has served on the UNEP TEAP Refrigeration Air Conditioning and Heat Pumps Technical Option Committee. He has served as technical advisor for the Brazilian Country Program, helped disseminate training on ozone friendly technologies in Brazil and other countries, and established the Ozone Layer Protection Program in the State of Sao Paulo.

Dr. Robert Van Slooten, UNEP TEAP

Dr. Robert Van Slooten served as a Member of the UNEP Technology and Economic Assessment Panel and Chair of the Economic Options Committee (EOC) during 1990-2000. For 25 years, he served as an Economic Adviser in the UK Government Economic Service with special interests in trade, development and environmental issues. He led the preparation of the 1991, 1994 and 1998 EOC Assessment Reports, the 1997 EOC Report on the Economic Viability of Methyl Bromide Alternatives and served on the 1996 and 1999 TEAP Task Forces that prepared the Reports on the 1997-1999 and 2000-2002 Replenishments of the Multilateral Fund.